

WHAT IS CLAIMED IS:

1. A clamp comprising:
a clamp body comprising an inverted spring portion and a plurality of tabs
5 about a circumference of an inner portion of the clamp body and an
outer clamping portion spaced from the inverted spring portion and
the plurality of tabs.
2. The clamp of claim 1 wherein the clamp body comprises an intermediate
10 portion between the inner portion and the outer clamping portion and the
inverted spring portion includes a first segment sloped relative to the
intermediate portion and a second segment recessed from the intermediate
portion to form a channel about the inner portion of the clamp body.
- 15 3. The clamp of claim 2 wherein the outer clamping portion comprises a ridge
about a circumference thereof having a surface recessed below the intermediate
portion to form a clamping interface.
4. The clamp of claim 2 wherein the plurality of tabs extend from the second
20 recessed segment of the clamp body.
5. A clamp assembly comprising:
a clamp body comprising an inverted spring portion and a plurality of tabs
about a circumference of an inner portion of the clamp body; and
25 a clamping interface comprising a flange about a portion of a
circumference thereof and a groove between the flange and an outer
portion of the clamping interface and the inverted spring portion of

the clamp body being insertable into the groove so that the plurality of tabs of the clamp body abut the flange of the clamping interface.

6. The clamp assembly of claim 5 wherein the clamp body comprises an outer clamping portion and an intermediate portion between the outer clamping portion and the inner portion of the clamp body to provide an interface between the groove of the clamping interface and the outer portion of the clamping interface.

10 7. A spindle assembly comprising:
a spindle portion rotatable relative to a spindle hub and the spindle portion including a flange about a portion of the circumference thereof and an inner groove between the flange and an outer spindle portion;
and
15 a clamp comprising an inner portion and an outer portion and the inner portion including an inverted spring portion insertable into the inner groove of the spindle portion and a plurality of tabs abutable against the flange of the spindle portion to clamp the clamp.

20 8. The spindle assembly of claim 7 and further comprising:
a disc supported on a ledge of the outer spindle portion and clamped between the outer portion of the clamp and the ledge.

25 9. The spindle assembly of claim 7 wherein the outer spindle portion includes a ledge and an outer edge surface to form a post to support a disc on the outer spindle portion radially spaced from the inner groove.

10. The spindle assembly of claim 7 wherein the flange includes a plurality of spaced flange segments and including a slot between the spaced flanged segments to remove the clamp.

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11. The spindle assembly of claim 7 wherein the clamp includes an intermediate portion between the inverted spring portion and an outer clamping portion and the inverted spring portion includes a recessed surface spaced from the intermediate portion of the clamp forming a channel about a circumference of the clamp.

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12. The spindle assembly of claim 11 wherein the intermediate portion is aligned between the outer spindle portion and the inner groove of the spindle portion to provide an interface between the inverted spring portion in the inner groove of the spindle portion and the outer clamping portion of the clamp.

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13. The spindle assembly of claim 11 wherein the outer clamping portion of the clamp includes a ridge about a circumference thereof and the ridge includes an interface surface spaced from the intermediate portion.

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14. A method for clamping comprising steps of:
providing a clamp having an inverted spring portion and a plurality of tabs about a circumference thereof; and
supplying a force to the inverted spring portion to snap fit the inverted spring portion into a groove of a clamping interface and align tabs relative to a flange of the clamping interface.

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15. The method of claim 14 wherein the inverted spring portion and the plurality of tabs are formed on an inner portion of the clamp and comprising the step of:

5 biasing the inner portion of the clamp to snap fit the inverted spring portion into the groove and align the tabs relative to the flange.

16. The method of claim 14 wherein the clamping interface includes a spindle portion rotatable relative to a hub and comprising the step of:

 assembling at least one disc relative to the spindle portion; and
10 supplying the force to the inverted spring portion to snap fit the inverted spring portion and tabs into the groove of the spindle assembly with the tabs abutting the flange of the spindle assembly.

17. The method of claim 15 and further comprising the step of:

15 engaging the inner portion of the clamp through a slot between flange segments of the flange to remove the clamp.

18. A method for removing a clamp engaged relative to a flange comprising the steps of:

20 aligning a tool relative to a slot between flange segments of the flange; and
 engaging a portion of the clamp with the tool through the slot to remove the clamp.

19. The method of claim 18 wherein the clamp includes a plurality of tabs and the step of engaging a portion of the clamp engages at least one of the plurality of tabs.

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20. The method of claim 19 wherein the tabs are coupled to an inverted spring portion seated in an inner groove of a clamping interface and the step of engaging engages the portion of the clamp to snap the inverted spring portion out of the inner groove of the clamping interface.